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Evaluation of the Micro-Tasking Method for OpenStreetMap Imports

Atle Frenvik Sveen
NTNU/Norkart

Anne Sofie Strand Erichsen
NTNU/Norkart

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Atle Frenvik Sveen[a,*], Anne Sofie Strand Erichsen[a]

[a] *NTNU/Norkart*

Abstract: Open Geospatial Data, capable of enriching OpenStreetMap, is being released by governments around the world at an increasing rate. The OSM import methods have been refined since the massive TIGER-import, moving towards assisted methods such as the with micro-tasking method used by the LA and NY buildings imports. While these imports serve as great case studies of imports, they do not deal with complex datasets, or updates to the data, neither do they deal with partitioning of tasks. We examine how the Norwegian FKB-dataset can be imported to OSM using micro-tasking, and perform a user-test to determine the best partition of these micro-tasking tasks. In this we hope to improve the micro-tasking method to enable efficient and correct imports and updates of Open Governmental Geospatial Data to OSM.

Poster Download: http://scholarworks.umass.edu/foss4g/vol17/iss1/20

*Corresponding author
Email address: atlsve@norkart.no (Atle Frenvik Sveen)

Evaluation of the Micro-Tasking Method for OpenStreetMap Imports

The problem

How to import detailed (building) data to OSM?

OpenStreetMap

Import Strategies

Level of human involvement

Fully automated

Guided automated

Kartverket

Micro-Tasking

NYC

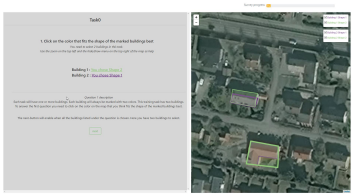
Micro-Tasking

"Computers are incredibly fast, accurate, but stupid. Humans are incredibly slow, inaccurate, but brilliant. Together they may be powerful beyond imagination" – A. Einstein

- Split problem into small parts
- Distribute to volunteers
- Solvable within minutes
- No training required

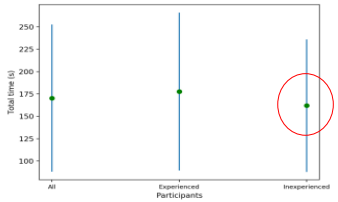
Experiment

- Online survey (~400 participants)
- Choose best building shape
- Vary number of buildings per task
- Measure time and accuracy



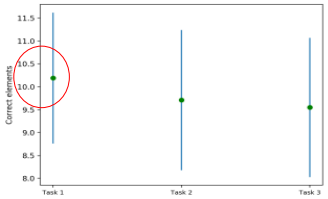
Results

Experience

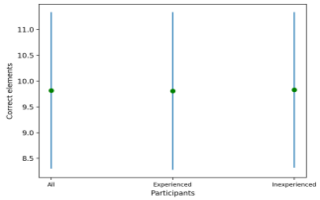


Inexperienced → faster

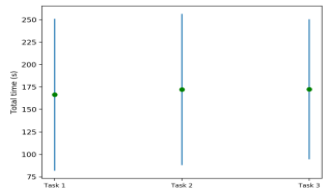
Buildings per task



Fewer → more correct



No difference on # correct



Time: no difference

Conclusion

- Micro-tasking is a feasible solution for OSM data imports
- Suitable for inexperienced participants
- Keep number of elements per task at minimum

More information at:
http://docs.atlefren.net/osm

About Us

Anne Sofie Strand Erichsen

MSc. Candidate
anneri@norkart.no

Atle Frenvik Sveen

Ph.d. Candidate
atlsve@norkart.no
@atlefren

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NORKART

NTNU
Norwegian University of Science and Technology